

Secrets  
Room 222

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

AUG. 07 1996

IN REPLY REFER TO:

9303161

RECEIVED

The Honorable Glen Browder  
U.S. House of Representatives  
2344 Rayburn House Office Building  
Washington, DC 20515-0103

AUG - 7 1996 DOCKET FILE COPY ORIGINAL

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Dear Congressman Browder:

Your correspondence of May 31, 1996, on behalf of your constituent, Mr. David L. Ellis, regarding radio spectrum for the hearing impaired has been forwarded to me. Mr. Ellis is seeking dedicated spectrum for transmitters that would be placed in alarm systems, smoke detectors, and other emergency warning devices. These transmitters would relay a signal to a device carried by persons with hearing impairments to notify them of an emergency situation.

Seeking an allocation for dedicated spectrum can be a complicated process which usually entails a rule making proceeding to determine if a new radio operation could share spectrum with incumbent users or whether the incumbent operations would have to be removed. Most often, it is easier to provide a new wireless service under existing allocations and rules. For example, Chapter 47 of the Code of Federal Regulations contains Part 15, which permits radio transmitters to use certain bands at low power without an FCC license. Cordless phones are an example of a Part 15 device. Part 15 devices are popular because the Commission permits flexibility in the manner in which these devices are used, as long as they maintain minimal requirements, such as low power. Further, please note that Section 15.237 of the Commission's rules authorizes the use of the 72-76 MHz band for auditory assistance devices.

On July 25, 1996, the Commission adopted a Report and Order in WT Docket No. 95-56, which set aside spectrum in the 216-217 MHz band for new Low Power Radio Services (LPRS) that would include auditory assistance devices, health care assistance devices, and law enforcement tracking systems. In the Report and Order, the Commission stated that providing spectrum for auditory assistance devices and radio-based health care devices furthers the goals of the Americans with Disabilities Act of 1990 (ADA), the Technology-Related Assistance for Individuals with Disabilities Act Amendments of 1994 (Tech Act Amendments), and other statutes, by promoting the development and use of affordable telecommunications devices by persons with disabilities in places such as educational settings, public gathering places, and health care facilities. I have enclosed a copy of the Report and Order for your constituent. Mr. Ellis should examine the service rules and technical criteria of the above services to determine whether they will facilitate his proposal.

The Honorable Glen Browder

2.

Please be assured that the Commission does take the interests of persons with disabilities into account in its spectrum management decisions. If you have further questions regarding the Low Power Radio Service, please contact Roger Noel at 202 418-0698; for information concerning Part 15 operations, contact Karen Rackley at 202 418-0637; and for information concerning allocation issues, contact Charles Iseman at 202 418-2444. I hope that this responds to your constituent's concerns.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bruce Franca".

Richard M. Smith

*for* Chief

Office of Engineering and Technology

Enclosure

GLEN BROWDER  
30 DISTRICT, ALABAMA

COMMITTEE ON NATIONAL SECURITY  
COMMITTEE ON THE BUDGET

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-0103**

May 31, 1996

Mr. Dan Phythyon  
Director of Legislative Affairs  
Federal Communication Commission  
1919 M Street, NW, Room 808  
Washington, DC 20554


Dear Mr. Phythyon:

Enclosed is a copy of a letter and enclosures which I have received from Mr. David Ellis, whose address is God's Gift Ranch, 933 County Road 831, Wadley, Alabama. Mr. Ellis has developed a wireless smoke detector for the hearing impaired, and he is now seeking a dedicated frequency from the FCC for transmission warning to the hearing impaired.

I respectfully request that you might review the material he has provided and furnish me with some information with which to respond to his request.

Thank you for your assistance.

Sincerely,



Glen Browder  
Member of Congress

GB/drm

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CCB  
cc  
3/6/



# Gods' Gift Ranch

David & Leisha Ellis □ 933 County Road 831 □ Wadley, Al. 36276 □ (205) 395-2370

The Honorable Glen Browder  
2344 Rayburn Building  
Washington, D.C. 20515-0103

Feb. 20, 1996

Dear Honorable Browder,

I felt in my heart to write to you on two substances. First, I want too thank-you for your support and the support of your staff assistants, especially Mr. Lifus Johnson and Debbie McBride, on relationship with the Hearing Impaired Smoke Detector Project that I have been working on. If you recall, on May 26, 1995 we invited you to attend the testing of this project at the Auburn University. Understandingly, your schedule prevented you from attending, but your Staff Assistance Mr. Johnson did show up in your behalf.

The Professors and students did an excellent job in presenting the need and operation of the wireless smoke detectors for the Hearing Impaired. Mr. Johnson showed a great support of the project in your behalf. The second substance that I am writing this letter to you, is to seek your endorsement and assistance on the following issue related to this project.

Endorsement and assistance needed:

1. An endorsement and assistance are needed to obtain a dedicated Frequency from the F.C.C. for transmission warning to the Hearing Impaired. A National common frequency is needed and has to be dedicated for this particular device, in order for it to alert any Hearing Impaired Citizen, no matter where he travels, works, or resides. Every alarm system, smoke & heat detectors, home detectors, and other emergency warning devices need to have the same dedicated frequency, so when and where the user walks, lives, or works, and a fire alarm or other emergency device is tripped, it will activate his/her device making them aware of the emergency and for them to evacuate or take shelter.

This endorsement and common dedicated FCC frequency would be like 33 USC sec. 1201 law, where there is a need for specific frequency or frequencies dedicated to the exchange of navigational information, on navigable waters of the United States. The deaf or other disable persons who are unable to hear the aural signals accompanying a transmission, need this dedicated frequency in order to ensure some type of unity throughout the United States. No matter where the user goes or works, and the building alarm system or other emergency system is activated, the user's device will alert him/her to a potential danger and cause for emergency evacuation or seeking of shelter.



# Gods' Gift Ranch

David & Leisha Ellis □ 933 County Road 831 □ Wadley, Al. 36276 □ (205) 395-2370

The endorsement and obtaining a dedicated F.C.C. frequency will help contribute to improve the quality of life for Hearing Impaired citizens. I cannot express in enough words, the importance of this dedicated frequency. By obtaining a dedicated frequency for all alarm systems, detectors, and other emergency devices with transmitters that send a dedicated frequency to a device that receives this frequency for disability persons (Hearing Impaired), will alert them to the activation of a fire alarm or other emergencies, is strongly needed.

Smoke & Heat Detectors along with alarm systems is our early warning system to save lives and to help us evacuate a building during the critical time of a fire identified. They are also our eyes when we are asleep at night, but currently not for the deaf or hearing impaired citizens. All work places and Hotel/Motels, and apartments need to have this transmitter device on all detectors, emergency warning devices, and alarm systems.

Without this dedicated frequency being fully supported and obtained, life safety for the Hearing Impaired Americans and other Nations Hearing Impaired will continue to be in jeopardy. There are approximately 3.5 million hearing impaired Americans, not including the elderly Americans. I again believe that it is our duty as American citizens to help those who cannot help themselves, who may not otherwise have a second chance especially during a fire or other emergencies. This dedicated frequency will not only help alert Hearing Impaired Americans to fire and other emergencies, but will expand the disabled citizen to a safer work environment and allow them to contribute their expertise to our Great Nation.

I pray that you will endorse the above request. It will be a blessing and support to those hindered by hearing impairments. I believe it will also be a benefit to this Nation and the American Citizens. Thank-you for your time, support, and consideration. May God Bless you with wisdom and strength in your endeavors of making this Nation strong once again.

A handwritten signature in black ink, appearing to read 'D. Ellis'.

David L. Ellis  
God's Gift Ranch  
933 County Road 831  
Wadley, Al. 36276

## **OBJECTIVES**

**THE OBJECTIVES OF THIS PROJECT AND PRODUCT is AS FOLLOWS:**

1. To assure a **Safe and Healthful** work place and home for **disabled Americans (Deaf, Hearing impaired, & Elderly)**, and for work environments where alarm systems are not capable of being perceived above ambient or high levels of noise.
2. Obtain a fully supportive loan that will be used to invest and promote an effective product and solution to the underlying characteristics of Home and Occupational **Fire Safety/Evacuation**, which effects the **Deaf and Hearing Impaired Citizens**.
3. To eliminate or control the factors that surround the home and work environment, dealing with fire and emergency evacuation, which are helpful to the **health and safety** of residents or workers.
4. To develop, implement, and sell a new technical application and device that will improve the home and occupational **fire safety** of **disabled and elderly citizens**.
5. Innovate an approach for the **Safety of Disadvantaged persons** in technological research/development and accomplishment towards **Fire Safety and Emergency Evacuations**.
6. To contribute to the **Prevention** of home and work related **Death/Injuries**, caused by **fire** and **related emergencies**.
7. To **Prevent and Control Injuries/Deaths** related to Fire and Emergency Evacuations, by being more effective in relation to **Hearing Impaired, Deaf, Work Environment, and Elderly Citizens**.
8. To **Develop, Expand and Improve Injury/Death Controls** related to fire and emergency evacuation of buildings. To help **Reduce Morbidity, Mortality, Severity, More Disability and Cost from injuries due to a Fire**.
9. To support a National project that will recognize and build the Awareness of importance for this fire safety technological device, for persons with disabilities in Hearing.

# **EXPLANATION OF PRODUCT**

## **QUESTION:**

What are this product and system that welcome needed funds and support for development and accomplishment?

## **ANSWERS:**

**A Wireless Fire-Alarm/Annunciator for the Hearing Impaired.**

Currently, The **Hearing Impaired** are at greater risk to **Loss of Life due to a fire and Inadequate Alarm Systems**. Commercial off-the shelf (COTS) technology is available to develop and implement a standardized, reliable, low-cost protection.

**The product objectives are to prove concept, fault tolerance, and flexibility:**

**Proof of Concept** is in the hardware implementation, COTS Technology, Multi-Alarm systems, and Low Cost.

**Fault Tolerance** is in the software implementation, communication protocol, and immune to failed power, failed alarm units.

**Flexibility** is in the expanded possible functions to be performed, such as **telephone ringing awareness, doorbell ringing awareness, security alarm, disaster warnings** such as severe weather and so on, **ALL IN ONE UNIT**. Expanded applicability for industrial (high-noise) settings.

The **current** implementations of alarm systems **rely upon flashing lights or strobes** to make Hearing Impaired aware of a fire alarm. Its **weakness** is it relies upon eyesight. This is a problem for the Hearing Impaired when He/She is asleep at home, away in an office room, or in a Hotel/Motel. Flashing lights are not commonly available in work (Office Rooms) environment.

The features of this product are for a standard home and work place fire alarm system. It contains a standard pocket transmitter/receiver with several digital codes

available and capable of discriminating between buildings. It will contain a **vibrating "Pager" or "Watch" (Swatch)** unit for Hearing Impaired Individuals.

To see the concept of the product, please review the video tape on hardware demonstration. Also, review the software demonstration on computer disk.



## **MARKETABLE AREAS AND POSSIBILITIES**

1. Persons with Disabilities (Deaf and Hearing Impaired) are the ultimate beneficiaries. There are **3.5 Million** Hearing Impaired Americans.
2. Elderly Senior Citizens who are hard of hearing.
3. Businesses, such as stores, offices, Federal Buildings, and manufactures with high level noises, facilities required or have a fire alarm system, and per OSHA where employers are required to protect their employees.
4. Hotel and Motels
  - a) Hilton Hotel corporation owns **23** hotels, manages **43**, and franchises **170**.
  - b) Holiday Inn Worldwide
  - c) Hyatt Corporation has **105** Hotels in U.S., Canada, and Caribbean, **59** Hotels in other countries. They also own the Royal Caribbean Cruise Line, American Medical Hospitals, Hawthorne Suites, and **60** Industrial sites of Marmon group.
  - d) Marriott International Inc. owns **784** domestic and international Hotels.
  - e) MGM Grand
  - f) Hospitality Franchise Systems Inc. has franchise for **1,441** Days Inn, **566** Howard Johnson, **27** Park Inn International, **676** Ramada Inn, and **1,061** Super 8 Motels.
5. Major Shopping Centers
  - a) J.C. Penny
  - b) Sears
  - c) K-Mart
  - d) Wal-Mart
  - e) Others
6. Hospitals and Nursing Homes as the quiet alarm worn by staff members so as not to create a panic or scare.
7. Day Care Centers, worn by staff members as not to panic young children.

8. Other areas such as clubs and transportation facilities with a high potential for loss of life.

9. Universities and Colleges

10. Government Offices and Buildings.

11. Government Housing, as part of a Law now requiring interconnecting of detectors. There are approximately **200,000** Government Housing Units.

12. Government Project Homes (HUD).

13. Other Nations

14. Marketing Plan

- a) See #8 under "Actions Needed".
- b) International Association of Fire Chiefs (IAFC)
- c) Direct Mailing (ADDT) lists.
- d) Government Housing, Bases, and Installations.
- e) Government Project Homes (HUD)
- f) American Retirement Association
- g) T.V. News Channels
- h) Special T.V. programs such as 60 minutes, etc.

## **BIOGRAPHICAL SKETCH OF KEY PERSONNEL**

**NAME:**

**David L. Ellis**

**SOCIAL SECURITY #:**

**359-40-4790**

**POSITION ON PROJECT:**

**President**

**EDUCATION:**

- Master Degree in Public Administration and Criminal Justice from Webster University**
- Baccalaureate Degree in Fire Science and Administration from Southern University of Illinois**
- Associate Degree in Fire Science from the College of Lake County Illinois**
- Numerous Fire Service Certifications: Fire Officer, Instructor, Haz. Mat. Firefighting, Fire Protection Systems, Safety, Total Quality Management, and so on.**

**EXPERIENCE:**

- 21 years total of Firefighting**
- 15 years as a Fire Officer**
- 10 years as a Fire Chief**
- Management, Supervision, and Administrative Leadership with \$1.5 Million Dollar Budget**
- Fire Protection, Prevention, Emergency Medical Services**
- Administrative and Technical Supervision over Firefighting, EMS, Haz. Mat., and Fire Prevention Work Force**
- Controlling Major incidents relating to Natural and man made Disasters**
- Providing Technical, Advisory, and Staff Assistance to Army Forces Command Headquarters; Directors, Commanders, and other Organizations**
- Consulting and Coordinating with other Community Fire Chiefs'**
- Negotiating Mutual Aid Agreements**
- Reviewing Practical Engineering Methods of Construction Projects**
- Managing and Implementing Safety Programs**
- Developing Long Range Plans for Improving Fire Protection, Prevention, and Emergency Medical Services**

## **BIOGRAPHICAL SKETCH OF KEY PERSONNEL**

**NAME:**

**Mike Sturgis**

**SOCIAL SECURITY #:**

**255-78-1937**

**POSITION ON PROJECT:**

**Budget Officer/Analyst**

**EDUCATION:**

- Baccalaureate Degree of Business Administration from Augusta College, Walton Way.**
- Baccalaureate Degree of Arts, from Augusta College, Walton Way.**
- Accounting, Psychology, Business Economics**
- Planning, Program, Budget Systems**
- Numerous Courses in Accounting and Budgeting**

**EXPERIENCE:**

- 20 years of Budget, Programming Analyst**
- 4 years as Chief of Budget; Programming and Budgeting Public Works**
- Responsibility of Fiscal Planning, Programming, Budget & Execution.**
- Supervision of a Staff of Four Personnel**
- Development of reports & Management Data for Comprehensive Financial Management Decision Making**
- Job Cost Accounting**
- Advisor on Development & Implementation of Schedules, Cost Study Processes, Regulation & Policies dealing with Budgets**
- Formulating & Presenting Budget Estimates for Multi-Year Operating Program Goals.**
- Constant Analysis & Revisions of Annual Budget Estimates Assuring Max. Utilization of Resources in Excess of \$550 Million Dollars**
- Intimate Knowledge of Congressional, OMB, and DA Budget Processes**
- Internal Management Guidance & Assistance for Resources Availability for Day to Day Proposed Operations**
- Controlling Cost Ceilings & Allotments, Providing Technical Support, and Serving as POC for Applicable Reports**
- Year End Closeout Activities**

## **CONCLUSION**

The growing segment of the population in Home and Business occupancies is the **Disabled**, to include those with **Hearing Impairment**. **Elected Officials, Bank Officials, and Business Enterprises** must consider the presence of Disabled Citizens when dealing with **Life Safety**, either at home or work.

One major factor of awareness for Hearing Impaired people is whether they are awake and alert, as they are at work, or asleep as they may be in Residential or Hotel settings. The awareness factor is crucial during a fire or emergency evacuation of a building. Smoke and Heat Detectors are everyone's eyes, ready to initiate an alarm to inform us of Danger and Life threatening smoke and fire. Then why do we **discriminate against** those Individuals who cannot hear or are hard of hearing a **Life Saving Alarm**? Remember, **Smoke and Heat Detectors** are our **early warning systems** to help us evacuate a building **during the critical time** of a fire identified. They are also our eyes when we are asleep at night, but not for the **Deaf or Hard of Hearing Citizen**.

The interval between discovery and criticality of a fire is the time available to undertake action, to prevent people from being exposed to the critical hazard level of Smoke and Fire. This action takes various forms such as activation of automatic fire detection and/or protection equipment, **evacuation of occupants**, or both. By lowering the response to the discovery level, it will increase the survivability of the disabled person and allow time for reaction.

Flashing or activated lights are an effective fire signal in occupancies populated primarily by Hearing Impaired Person. The NFPA 101, Life Safety Code, permits the flashing of exit signs along with activation of an audible fire alarm system, but the **above measures of Life Protection are limited to the Area and Exposure they serve**. This is why it is important to **implement new technology** that is **Mobile, Flexible**, and can **Adapt** to any environmental surrounding. This new Technology is the device called, "**The Ears of the Deaf and Hearing Impaired Citizens for Life Safety**."

The Fire Protection Handbook, 17ed., states: "When fire occurs, every subsequent action or reaction that serves to mitigate the fire's severity is triggered by some **TRANSFER of INFORMATION** about the fire or the response to it.

**Detection and Alarm systems**, including all associated systems of **COMMUNICATIONS**, are the **Means by which that information is transferred**. Detection is necessary to trigger automatic or manual suppression, some types of active fire confinement systems, and Evacuation. **The sooner this detection and triggering occur, the sooner these reactions and the resulting fire mitigation can begin.**" In Turn, it may save a **LIFE**.

I pray and have faith that all the information in this package is enough to encourage your commitment in funding and endorsing this product. You may have a Love one, or know of someone who will benefit from this device and prayerfully it may save someone's **LIFE**